Patent
270/096

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

HSU et. al

Serial No.: 10/072,629

Filed: February 8, 2002

For: STRUCTURES THAT CORRECT FOR THERMAL DISTORTION IN AN OPTICAL DEVICE FORMED OF THERMALLY DISSIMILAR MATERIALS

Group Art Unit: Not yet assigned

Examiner: Not yet assigned

[redacted]

SUPPLEMENTAL AMENDMENT

Box **Non-Fee**
Commissioner for Patents
Washington, D.C. 20231

Sir:

Please amend the application identified above as follows:

IN THE CLAIMS:

Please amend the claims as follows:

39. (Amended) A method of fabricating an optical device for propagating an optical signal, the method comprising:

CERTIFICATE OF MAILING
(37 C.F.R. §1.8a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

Sally Hartwell
Name of Person Mailing Paper

April 30, 2002
Date of Deposit

Signature of Person Mailing Paper

[redacted]

providing a first substrate having a first side and a second side;

forming a first light guiding structure on the first side of the first substrate, the first light guiding structure comprising a different material than the first substrate;

forming a dielectric layer on the first substrate or on a second substrate;

etching a cavity to remove a portion of the dielectric layer and a portion of the second substrate;

bonding the first substrate to the second substrate such that the dielectric layer is located between the first and second substrates and the first light guiding structure resides in the cavity;

reducing the thickness of the second side of the first substrate;

depositing a second material on the second side of the first substrate such that the deposited second material substantially cancels the effect of thermal stress on the first light guiding structure; and

processing the first substrate to form a suspended structure which is adapted to move relative to the second substrate, the suspended structure having the first light guiding structure.

41. (Amended) The method of claim 39 wherein the deposited second material is a second light guiding structure.

42. (Amended) The method of claim 40 wherein the deposited second material is a second light guiding structure.

Claims 1-51 are pending in this application. Applicants have amended independent claim 39 and dependent claims 42-43. Applicants respectfully submit that pending claims 1-51 are in

condition for allowance. Thus, it is respectfully requested that the subject application be allowed to issue in due course.

If the Examiner has any questions regarding the foregoing, or if the Examiner would like to discuss any matters relating to this application, the Examiner is invited to contact the undersigned representative of Applicants at (949) 567-2300.

Attached hereto are substitute sheets for the amended claims. Also attached is a marked-up version of the changes made to the claims by the current amendment. The attachment is captioned **"Version With Markings To Show Changes Made."**

Date: April 30, 2002

Respectfully submitted,
LYON & LYON LLP

By: _____
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

39. (Amended) A method of fabricating an optical device for propagating an optical signal, the method comprising:

providing a first substrate having a first side and a second side;

forming a first light guiding structure on the first side of the first substrate, the first light guiding structure comprising a different material than the first substrate;

forming a dielectric layer on the first substrate or on a second substrate;

etching a cavity to remove a portion of the dielectric layer and a portion of the second substrate;

bonding the first substrate to the second substrate such that the dielectric layer is located between the first and second substrates and the first light guiding structure resides in the cavity;

reducing the thickness of the second side of the first substrate;

~~forming a second light guiding structure~~ depositing a second material on the second side of the first substrate such that the deposited second material substantially cancels the effect of thermal stress on the first light guiding structure; and

processing the first substrate to form a suspended structure which is adapted to move relative to the second substrate, the suspended structure having the first ~~and second~~ light guiding ~~structures~~ structure.

41. (Amended) The method of claim 39 wherein the deposited second material is a second light guiding structure ~~is a waveguide~~.

42. (Amended) The method of claim 40 wherein the deposited second material is a second light guiding structure ~~is a waveguide~~.